



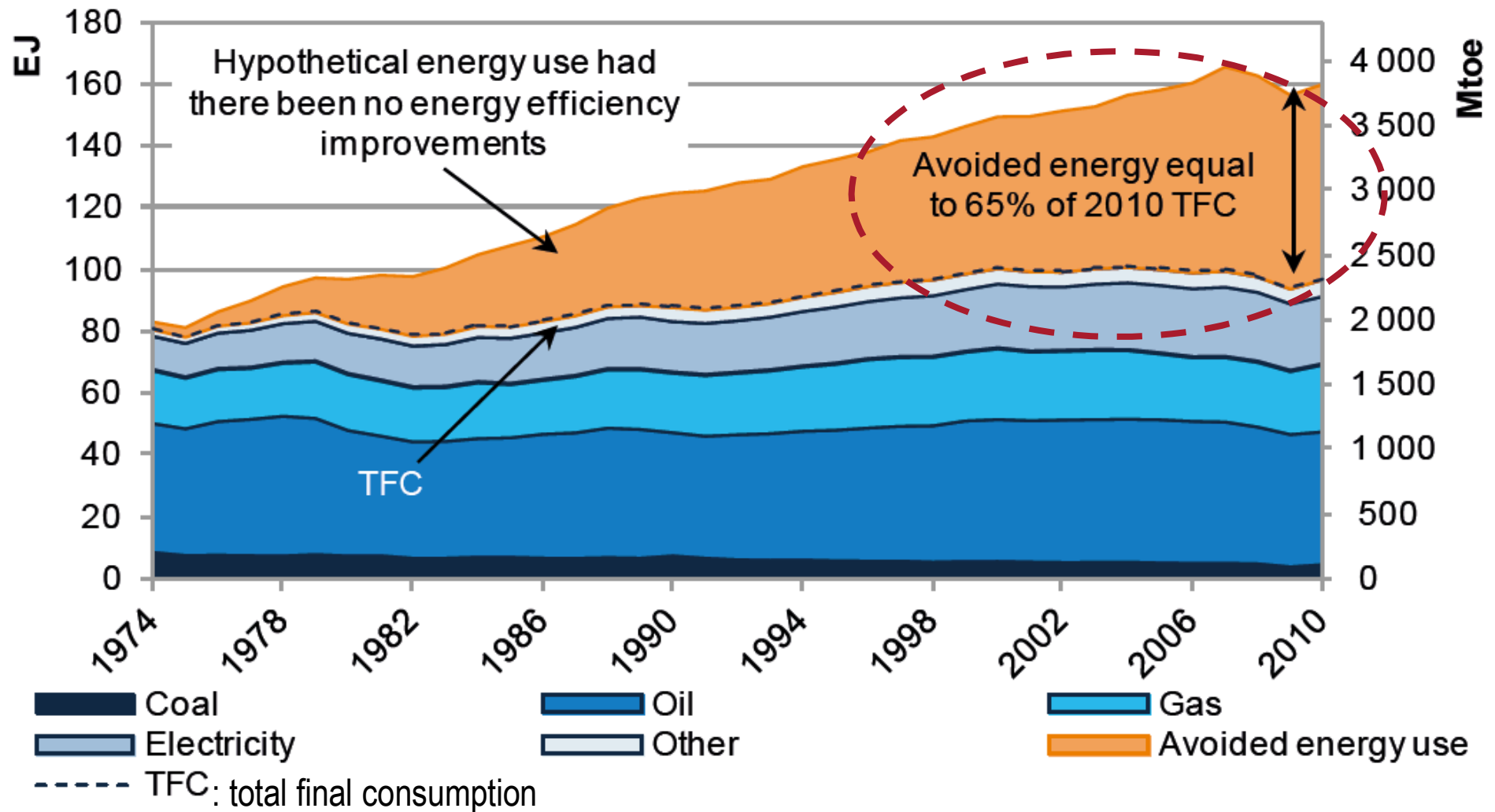
## *Partenariat Tuniso-Allemand de l'énergie*

# **Economic Potentials and Multiple Benefits of Energy Efficiency**

**Jan W. Bleyl**, Energetic Solutions & Task 16

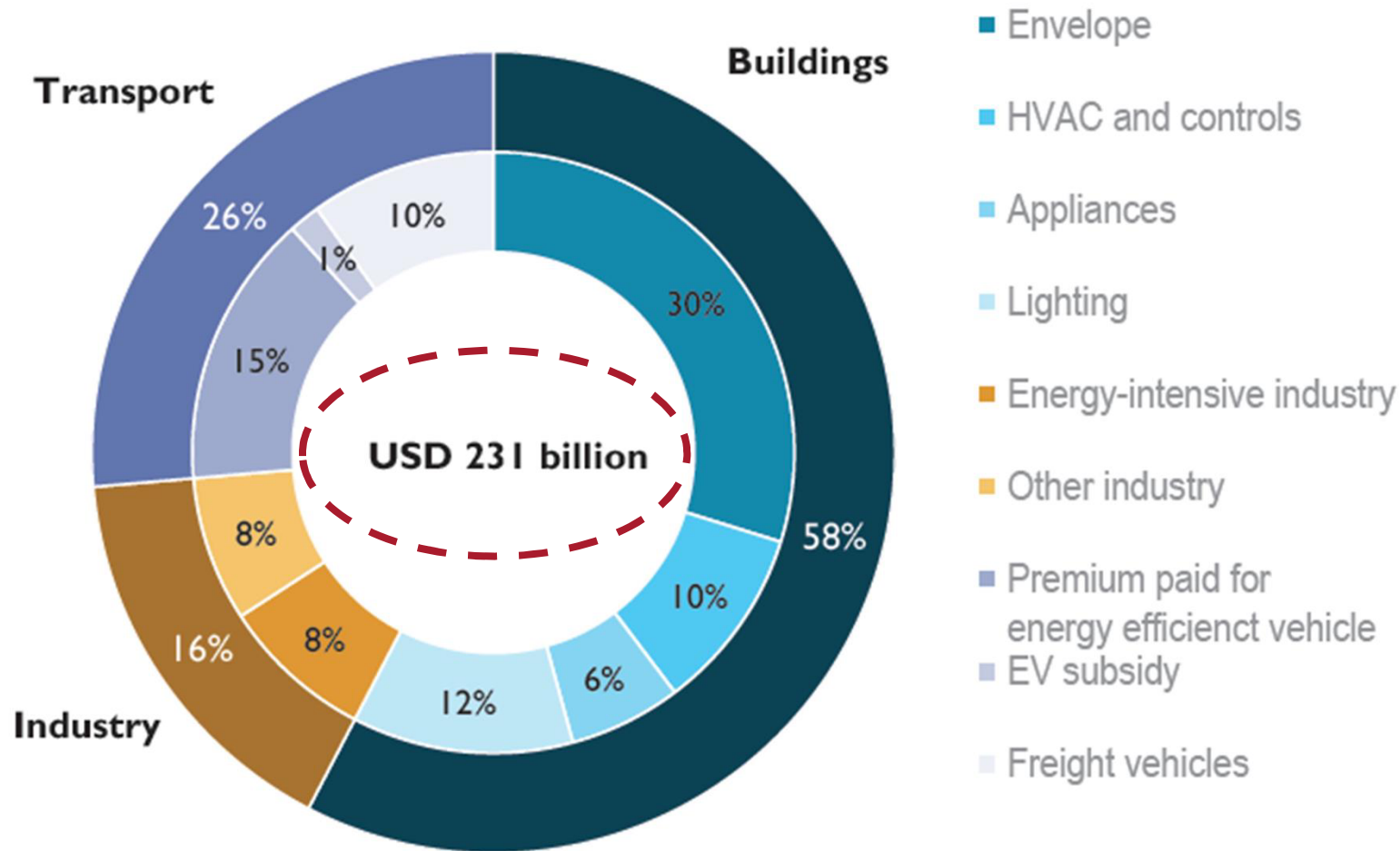
Tunis, Tunisia, 29 November 2017

# “First fuel”: Avoided energy use through Energy Efficiency (11 IEA countries 2013)



Source: [IEA 2013, p.20]

# IEA: Energy efficiency investment by sector in 2016



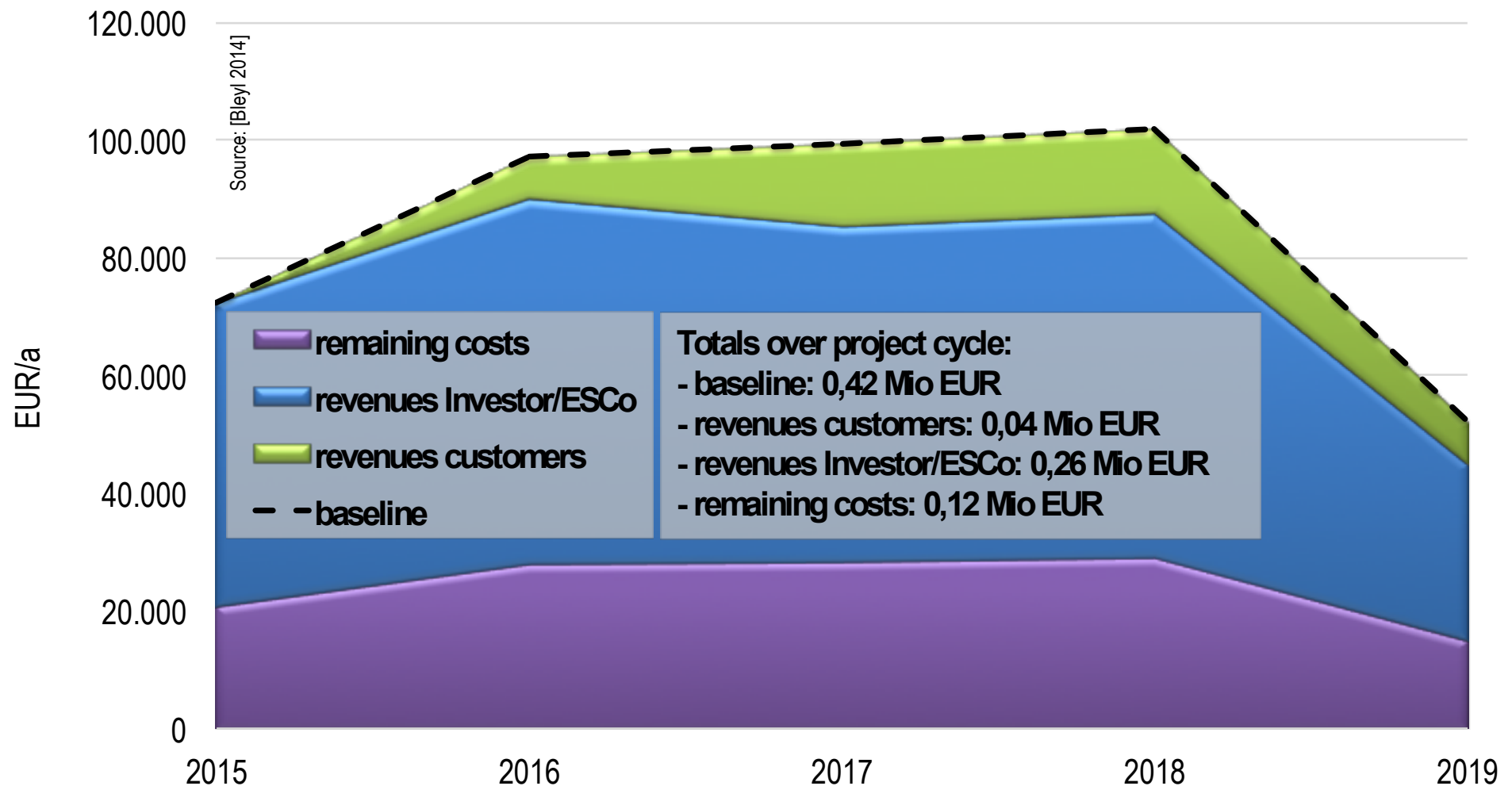
Source: [IEA 2017, p. 92]

*Industrial re-lighting project:*  
**Technical & economic analyses**

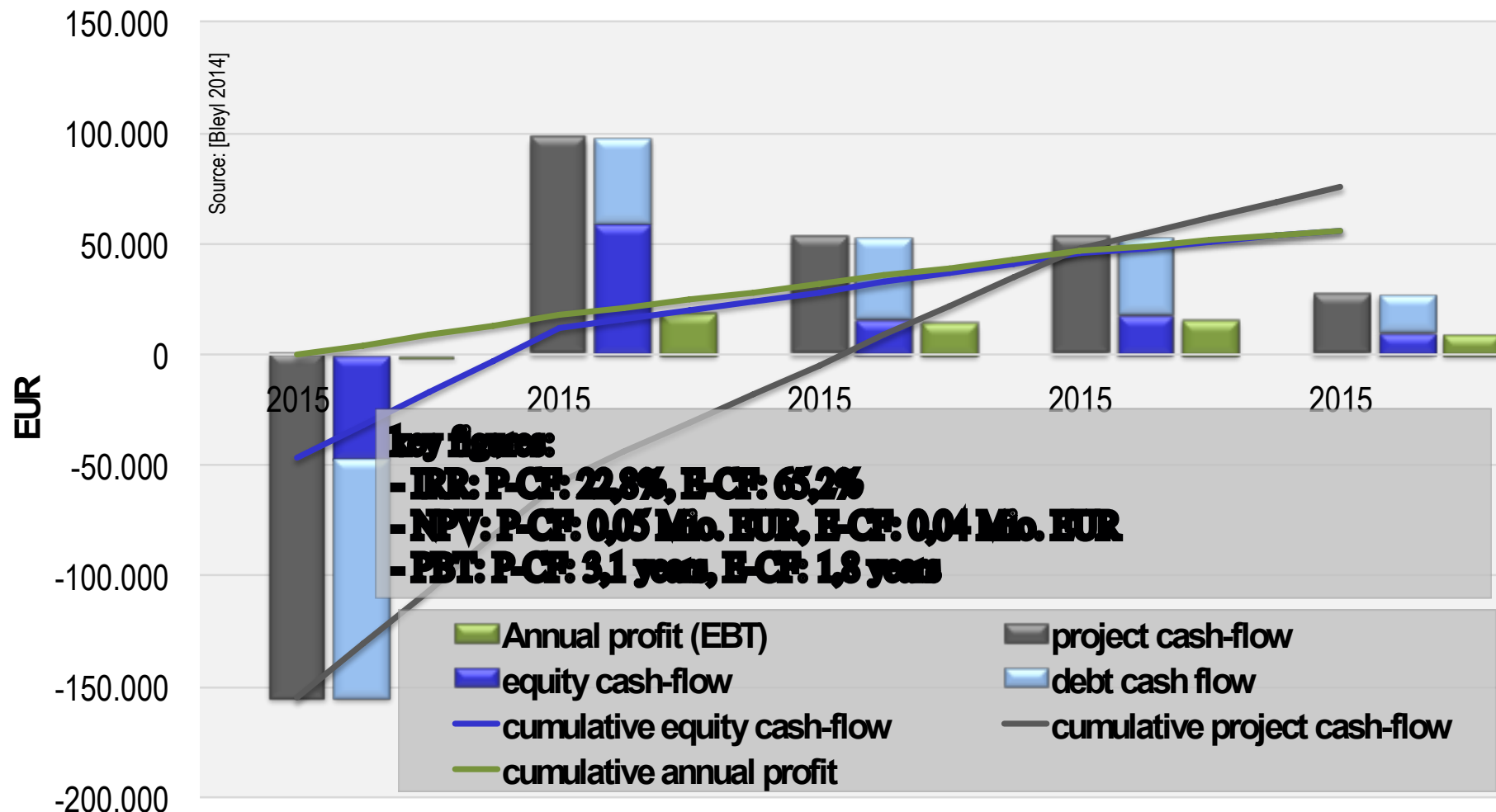
# Case study: **Industrial Re-lighting**



# Baseline, revenues client, EScO and cost after savings measure



# Dynamic investment appraisal: Net Cash Flows & Profits (annual+accumulated)



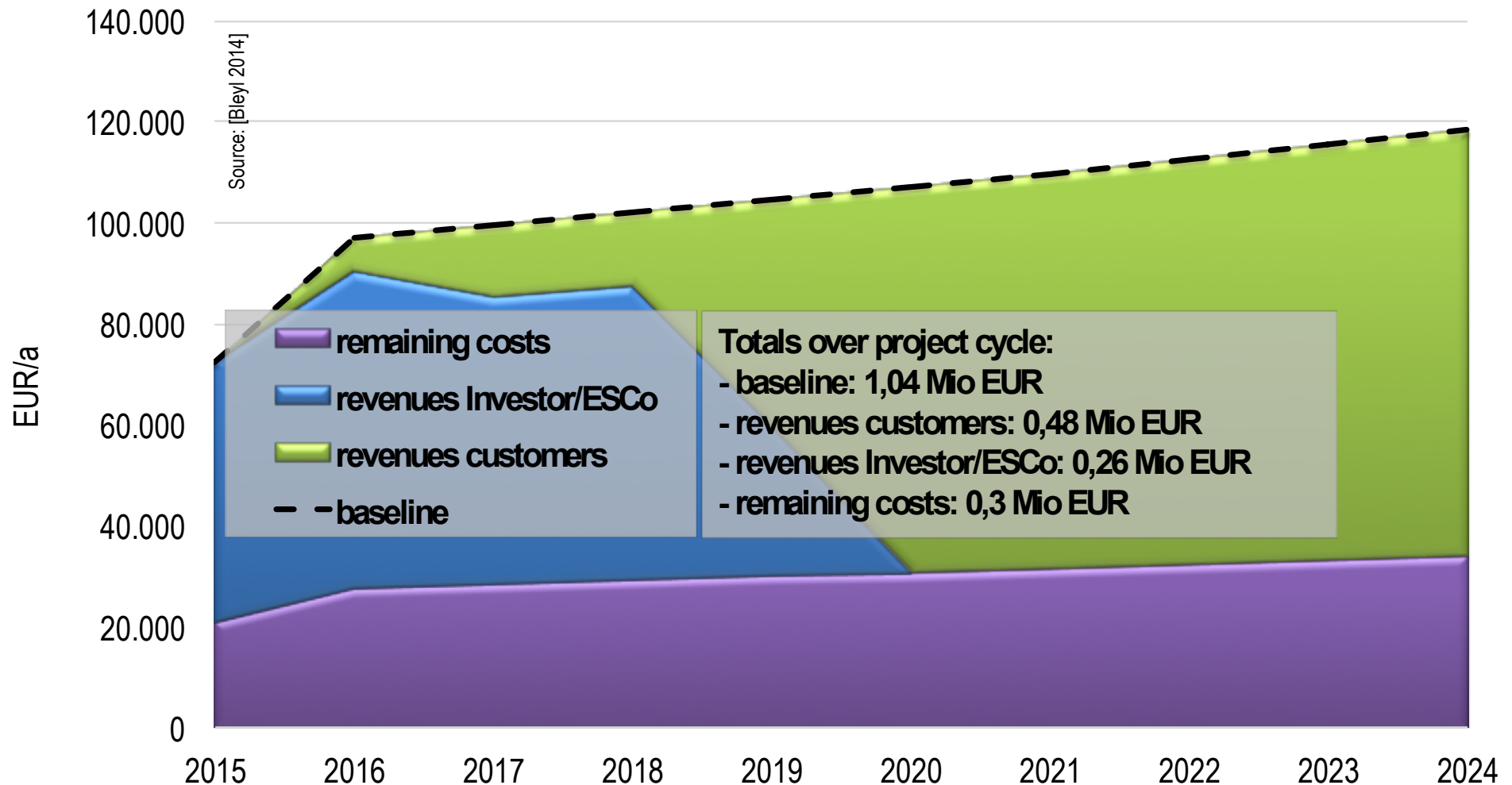
# Dynamic investment appraisal: Summary and KPIs

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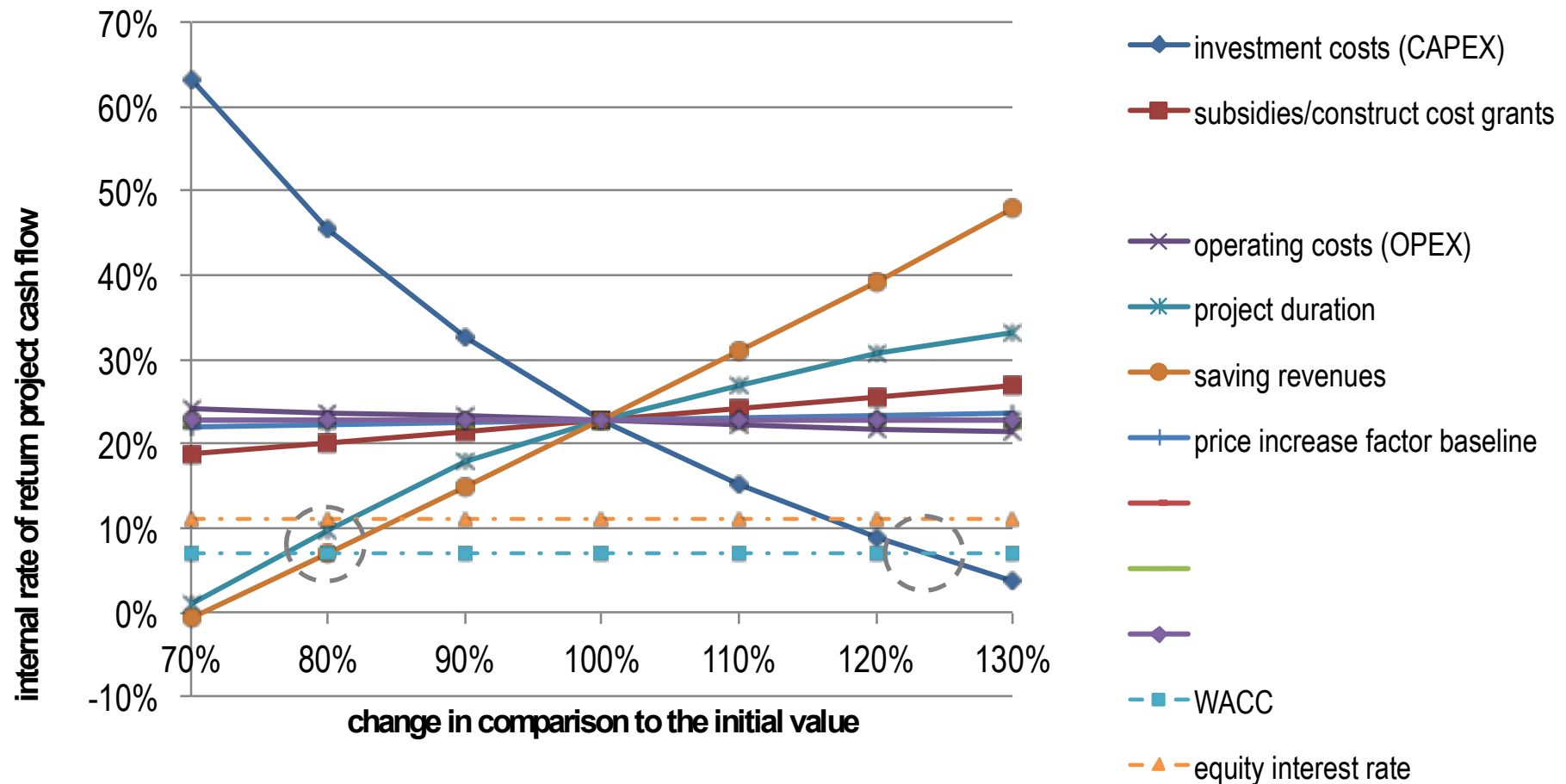
		project cash-flow	equity cash-flow
project duration	years	4,5	
total investment	EUR	198.500	
invested equity	EUR	-	49.625
invested debt capital	EUR	-	148.875
interest rate for discounting	%	7,3% (WACC)	11% (equity interest rate)
net present value	EUR	45.809	39.413
internal rate of return (IRR)	%	22,8%	63,6%
payback period (dynamic)	years	3,1	1,8
Loan Life Cover Ratio	-	1,4	-



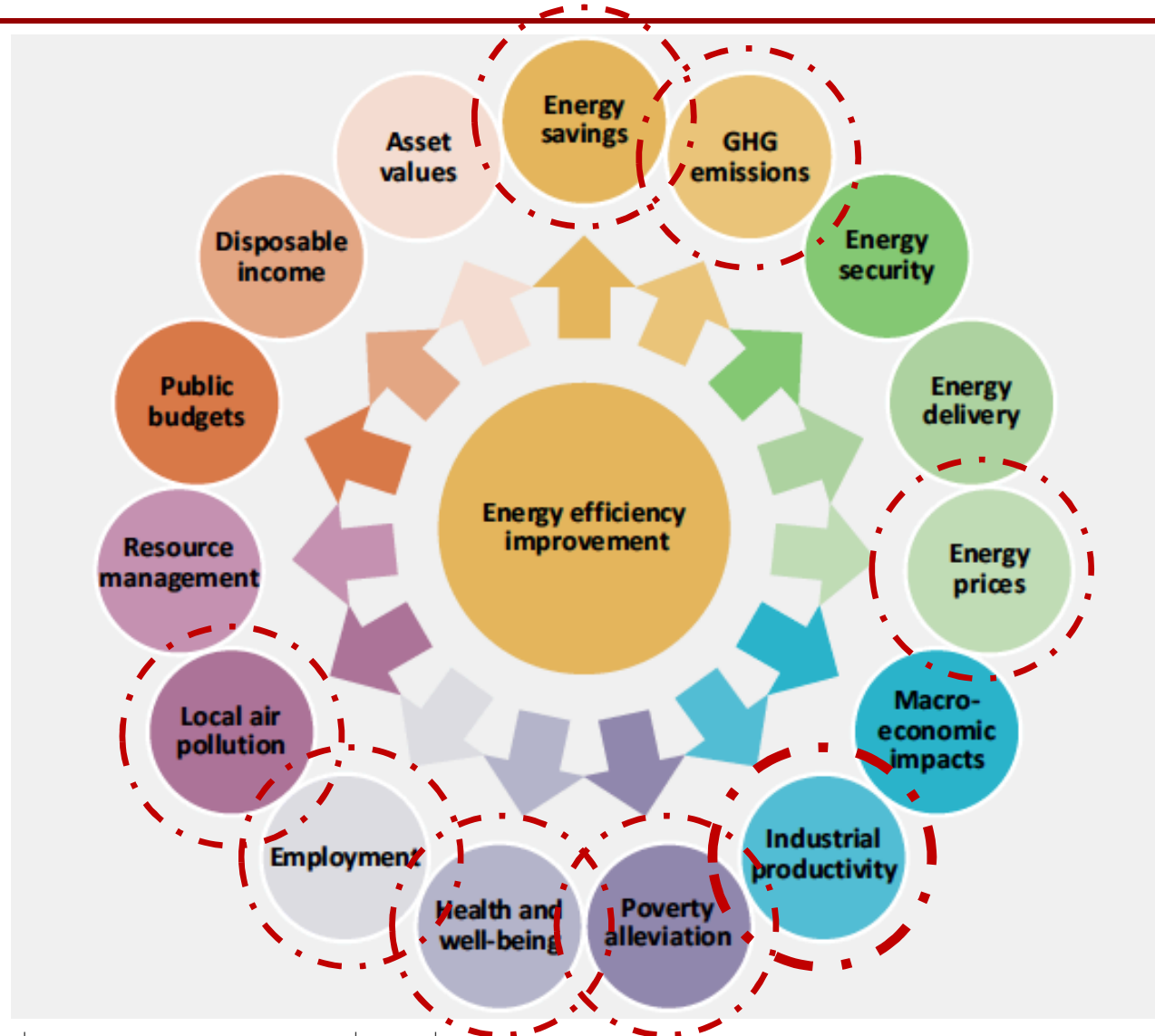
# Baseline and clients share of savings during and after contract over 10 years



# IRR Sensitivity analyses (deviation in %)

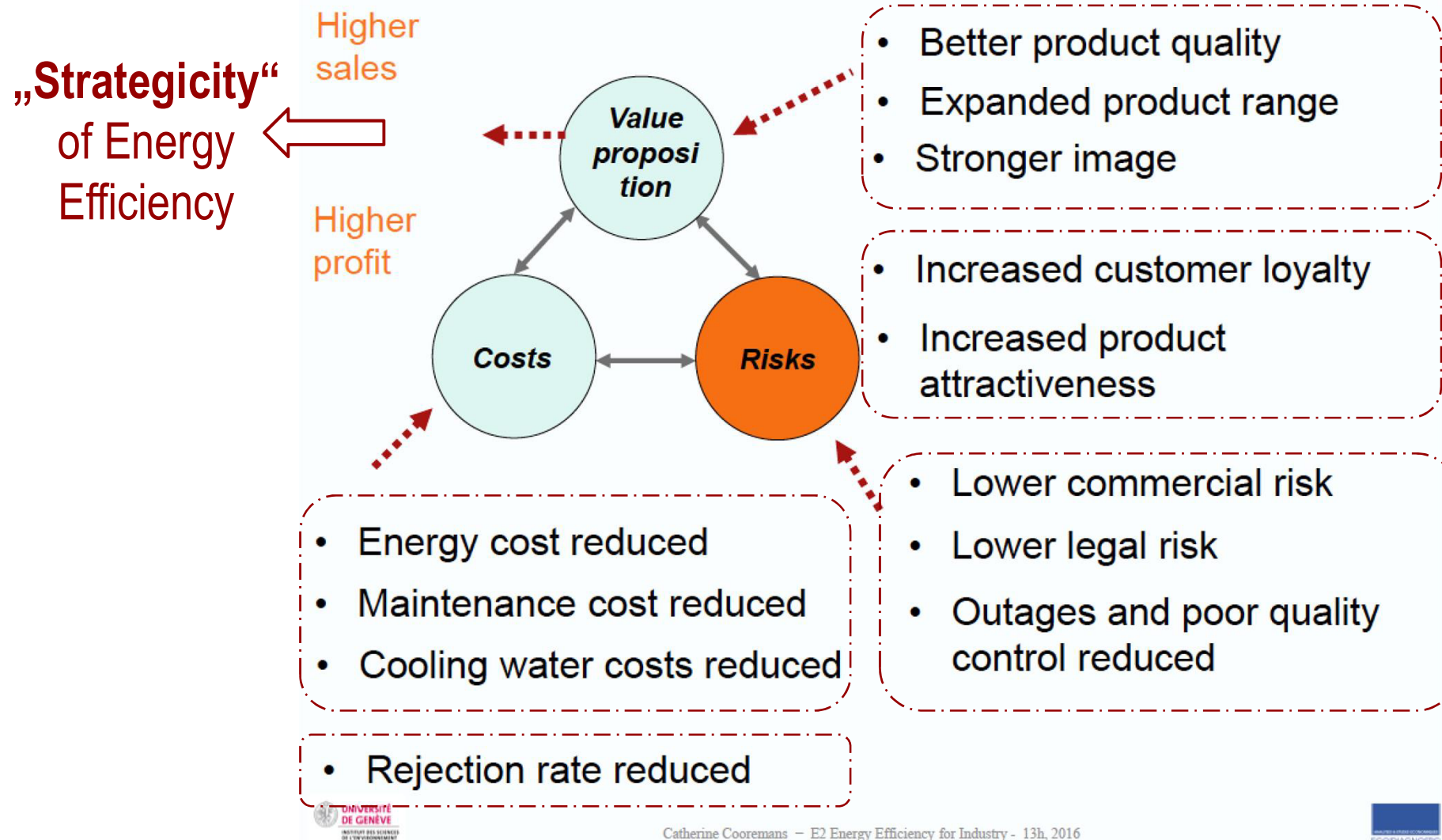


# The Multiple Benefits of Energy Efficiency => Strategic partnerships? (IEA 2014)



Source: [IEA 2014]

# Case Study: New Rectifier for galvanizing => Multiple Benefits: Cost , quality ...



Source: after [C. Cooremna and IEA 2017, p. 78]

Catherine Cooremans – E2 Energy Efficiency for Industry - 13h, 2016



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**Merci de votre attention!**

**Questions et remarques  
bienvenues!**

**Que pourrions-nous faire  
ensemble?**

*Get in touch:*

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